

Atty. Dkt. No. 027209-0701

REMARKS

Applicant respectfully requests reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

Claim 38 is currently being re-presented.

This amendment adds, changes and/or deletes claims in this application. A detailed listing of all claims that are, or were, in the application, irrespective of whether the claim(s) remain under examination in the application, is presented, with an appropriate defined status identifier.

After amending the claims as set forth above, claims 1, 2, 5, 8-18, 20, 22, 23, 25, 30, 31 and 37-39 are now pending in this application. Claims 3, 4, 6, 7, 19, 21, 24, 26-29 and 32-36 remain withdrawn from consideration.

The Office Action objects to claim 39 as being improper for depending from non-elected claim 38. Dependent claim 38 was mistakenly withdrawn from consideration and is hereby re-presented for consideration. Accordingly, claim 39 is now in proper dependent form.

Claims 1, 2, 5, 8-18, 20, 22-23, 25, 30-31, 37 and 39 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,051,401 to Hayward (hereinafter "Hayward") in view of U.S. Patent No. 4,297,604 to Tawse (hereinafter "Tawse"). Applicant respectfully traverses the rejection of the pending claims.

In order to establish a *prima facie* case of obviousness, "... the prior art reference (or references when combined) must teach or suggest all the claim limitations." See M.P.E.P. § 2142, ¶1 (emphasis added). As discussed below, the applicant submits that the cited prior art fails to teach or suggest all the claim limitations.

The present invention, as recited in independent claim 1 and 37, is directed to an electric motor and a circulation pump containing an electric motor. The electric motor includes a rotor and a stator. The rotor is supported on a substantially spherical bearing and is of a substantially spherical design facing the stator. The stator has a magnetic return-path body made of a

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compressed powder material. Portions of the return-path body facing the rotor are of a substantially spherical design facing the rotor. The disclosed embodiments provide an electric motor having a high degree of efficiency which can be provided with a small length in the direction of the rotational axis of the rotor.

As noted in the specification, forming the return-path body from a compressed powder material results in a high variability with respect to the shaping of the return-path body. Thus, the return-path body can be configured to ensure high transfer of magnetic flux to the rotor. In this regard, an electric motor with a small air gap is formed in the shape of a substantially spherical shell with portions of the return-path body having a substantially spherical design. Accordingly, claims 1 and 37 recite an electric motor "wherein at least segments of the return-path body facing the rotor are of a substantially spherical design facing the rotor."

The cited references, either individually or in combination, fail to teach or suggest at least this feature of the pending claims. The Office Action cites Hayward as disclosing an electric motor wherein the return-path body is of a substantially spherical design. Specifically, the Office Action points to the teeth 5 of the stator as being spherical. However, the teeth 5 of the device in Hayward do not constitute a magnetic return-path body. Hayward discloses an electric motor with a stator including a plurality of radially extending magnetically soft iron elements forming pole teeth (col. 2, lines 33-35). A magnetic closure loop element is provided at the opposite axial end of the pole teeth, and a magnetic loop closure ring 6 interconnects the teeth 5. The magnetic return-path body in Hayward is the magnetic closure ring 6, not the teeth 5. The magnetic closure ring 6 of Hayward is not of a substantially spherical design. Accordingly, Hayward fails to teach or suggest at least the above-noted feature of the claimed invention.

Similarly, Tawse fails to teach or suggest that feature of the claimed invention. Tawse discloses an electric generator with a bearing which retains a rotatable shaft to which a rotor assembly is secured. Tawse does not teach or suggest any spherical components of the motor and, specifically, fails to teach or suggest an electric motor "wherein at least segments of the return-path body facing the rotor are of a substantially spherical design facing the rotor."

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Thus, the cited references fail to teach or suggest all of the claim elements recited in independent claims 1 and 37. Accordingly, independent claims 1 and 37 are patentable. Claims 2, 5, 8-18, 20, 22-23, 25 and 30-31 depend, either directly or indirectly, from allowable claim 1 and are, therefore, patentable for at least that reason, as well as for additional patentable features when those claims are considered as a whole. Similarly, claims 38 and 39 depend, either directly or indirectly, from allowable claim 37 and are, therefore, patentable for at least that reason.

Applicant believes that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 50-0872. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 50-0872. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 50-0872.

Respectfully submitted,

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